

METHOD OF MEASURING THRESHOLD CURRENT OF SEMICONDUCTOR LASER AND DEVICE THEREOF

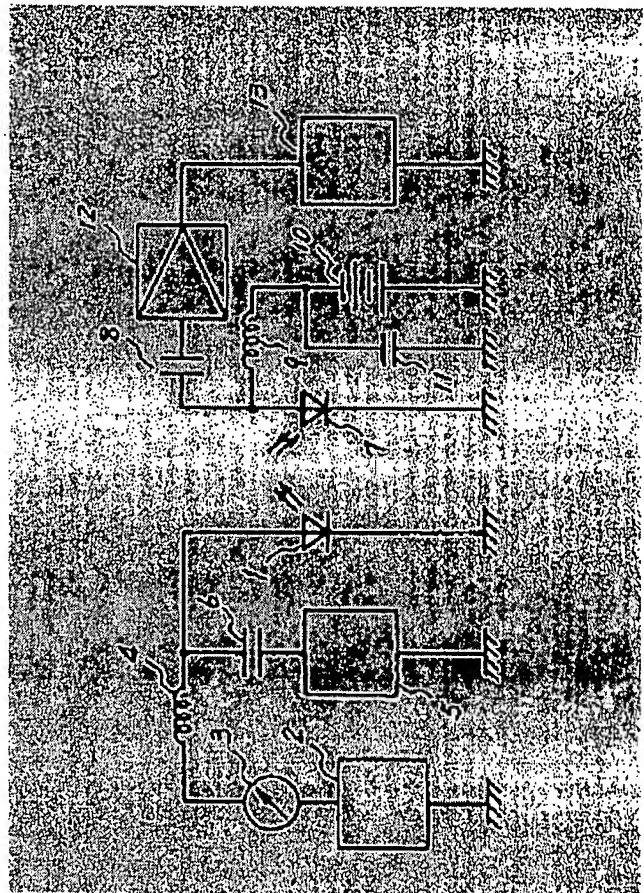
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Abstract of JP57075480

PURPOSE: To contrive a simple method of measuring a threshold value and to exactly measure a threshold value by utilizing the fact that the luminous modulation cut off frequency of a semiconductor laser is the difference between the spontaneous emission emitting light and the laser emitting light.

CONSTITUTION: Bias current is supplied to a semiconductor laser 1 from the first bias power source 2 through a DC ammeter 3 and a choke coil 4. Furthermore, a modulation signal having higher oscillation frequency than the modulation cut off frequency of the spontaneous emission LED light emitting of the laser 1 and that lower than the modulation cut off frequency of the laser emitting light is generated from a modulation signal power source 5 to superimpose the modulation signal on the bias current of the laser 1 through a capacitor 6. The light output from the laser 1 is received by a light sensitive photo diode 7 and a suitable reverse bias is applied to the light sensitive photo diode 7 by the second bias current source 10 to supervise a modulated component detected by a detector 12 by a voltmeter 13. And the current of the laser 1 is gradually increased by the power source 2 and a current value detecting or distinguishing a modulation signal component at the light output is measured to use the current value as a threshold value.



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